

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of milling grooves in a work-piece comprising:

providing an abrasive fluidjet device ~~mounted on a manipulator and emitting that selectively emits~~ an abrasive fluidjet from the device; and

traversing the abrasive fluidjet across ~~the~~ a work-piece to form a groove having a selected depth and wall taper in the work-piece, ~~including executing a plurality of passes with the abrasive fluidjet being oriented at a different impingement angle for at least two of the passes~~ executing one or more passes along a selected path for the groove with the abrasive fluidjet oriented at a negative lateral angle, executing one or more passes along the selected path with the abrasive fluidjet oriented at a positive lateral angle, and executing one or more passes along the selected path with the abrasive fluidjet oriented at a zero lateral angle.

2. (Cancelled)

3. (Currently Amended) The method of claim 2-1 wherein the negative ~~or~~ and positive lateral angle is angles are between about 2 and about 5 degrees.

4. (Cancelled)

5. (Currently Amended) The method of claim 1 wherein at least one pass is executed with the abrasive fluidjet oriented at a ~~leading~~ longitudinal angle relative to a direction of traverse.

6. (Currently Amended) The method of claim 5 wherein the leading longitudinal angle is about 2 to about 20 degrees.

7. (Cancelled)

8. (Original) The method of claim 1 wherein an abrasive is mixed with a fluidjet within a mixing tube of the abrasive fluidjet device to produce the abrasive fluidjet, and wherein the mixing tube has a length up to 200 times an average diameter of an axial interior channel of the mixing tube.

9. (Original) The method of claim 1 wherein an abrasive is mixed with a fluidjet within a mixing tube of the abrasive fluidjet device to produce the abrasive fluidjet, and wherein the mixing tube has a length of about 4 inches.

10. (Original) The method of claim 1 wherein an abrasive is mixed with a fluidjet within a mixing tube of the abrasive fluidjet device to produce the abrasive fluidjet, and wherein the mixing tube has an axial interior channel with a diameter of about 0.020 to about 0.100 inches.

11. (Original) The method of claim 10 further comprising passing fluid from a high pressure fluid source through an orifice to generate the fluidjet and where in the orifice diameter is about 0.005 to about 0.025 inches.

12.-75. (Cancelled)